ALSTOM DRAWING REVIEW COMMENTS
APPROVAL DRAWINGS SUBMITTED 12/11/03

General comments

1. In the title bock change IPCS to IPSC.

2. On all drawings that show a SS shipping split, there are many that only show the SS on one side and the other side is to a terminal block. Show the SS on both ends of the cable.

3. Show all relay contacts.

4. Drawing Numbering System

Alstom Drawing Number	Unit Designation	Project Equipment	IPP Drawing #
2000-8100-01	Unit 2	2CCE-EXX-1D2	63.2203.1.05-240001
2000-8100-02	Unit 2	2CCE-EXX-1D1	63.2203.1.05-240002
GD70107\2001-RR1	Unit 2	2CCE-EXX-1D	63.2203.1.05-240003
GD70107\2001-001	Unit 2	2CCE-EXX-1D	63.2203.1.05-240004
GD70107\2001-002	Unit 2	2CCE-EXX-1D	63.2203.1.05-240005
GD70107\2001-003	Unit 2	2CCE-EXX-1D	63.2203.1.05-240006
GD70107\2001-004	Unit 2	2CCE-EXX-1D	63.2203.1.05-240007
GD70107\2001-005	Unit 2	2CCE-EXX-1D	63.2203.1.05-240008
GD70107\2001-006	Unit 2	2CCE-EXX-1D	63.2203.1.05-240009
GD70107\2001-007	Unit 2	2CCE-EXX-1D	63.2203.1.05-240010
GD70107\2001-007A	Unit 2	2CCE-EXX-1D	63.2203.1.05-240011
GD70107\2001-008	Unit 2	2CCE-EXX-1D	63.2203.1.05-240012
GD70107\2001-008A	Unit 2	2CCE-EXX-1D	63.2203.1.05-240013
GD70107\2001-008B	Unit 2	2CCE-EXX-1D	63.2203.1.05-240014
GD70107\2001-009	Unit 2	2CCE-EXX-1D	63.2203.1.05-240015
GD70107\2001-010	Unit 2	2CCE-EXX-1D	63.2203.1.05-240016
GD70107\2001-011	Unit 2	2CCE-EXX-1D	63.2203.1.05-240017
GD70107\2001-012A	Unit 2	2CCE-EXX-1D1	63.2203.1.05-240018
GD70107\2001-012B	Unit 2	2CCE-EXX-1D1	63.2203.1.05-240019
GD70107\2001-012C	Unit 2	2CCE-EXX-1D2	63.2203.1.05-240020
GD70107\2001-012D	Unit 2	2CCE-EXX-1D2	63.2203.1.05-240021
GD70107\2001-0013	Unit 2	2CCE-EXX-1D	63.2203.1.05-240022
GD70107\2001-101	Unit 2	2CCE-EXX-1D	63.2203.1.05-240023
GD70107\2001-102	Unit 2	2CCE-EXX-1D	63.2203.1.05-240024
GD70107\2001-103	Unit 2	2CCE-EXX-1D	63.2203.1.05-240025
GD70107\2001-104	Unit 2	2CCE-EXX-1D	63.2203.1.05-240026
GD70107\2001-105	Unit 2	2CCE-EXX-1D	63.2203.1.05-240027
GD70107\2001-106	Unit 2	2CCE-EXX-1D	63.2203.1.05-240028

GD70107\2001-107	Unit 2	2CCE-EXX-1D	63.2203.1.05-240029
QF0209r1	*not required*	*not required*	63.2203.1.05-900001*
C-13467 sheet 1 of 1	*not required*	*not required*	63.2203.1.05-900002*
NP-11198 sheet 1 of 2	*not required*	*not required*	63.2203.1.05-900003*
NP-11198 sheet 2 of 2	*not required*	*not required*	63.2203.1.05-900004*
CW-12561	*not required*	*not required*	63.2203.1.05-900005*

* The IPP drawing numbers for the motor operated switch assumes the switch drawings are generic for all eight drive assemblies. If separate drawings are being furnished for each drive assembly the numbers will be changed to reflect the correct unit number.

IPP numbering scheme

63.2203.1.AA-BCDDDD

63.2203.1	Alstom Contract 45605	
AA	drawings	.05
	reports	.06
	instruction books	.07
B	Unit 1, 2 or 9 (common equipment)	
C	equipment number	A drive is 1, B drive is 2, C drive is 3, D drive is 4
DDDD	sequential number for each vendor drawing number	

Drawing No. GD70107/2000-8100-01 and -02

1. Provide a detail drawing of the bus connections for the high voltage power cable connections. Verify electrical clearances are in accordance with ANSI standards, including any de-rating required for elevation. Provide detailed information on cable connection including bolt torques, bolting assembly and installation requirements. Submit details of the power cable connections.
2. Submit details of the anchor bolts including size and type of installation with a Structural PE stamp on the calculation and details. Seismic details shall be based on installation on the existing floors.
3. Provide cabinet layout drawings showing major components and terminal blocks.

Drawing No. GD70107/2001-RR1

1. See General comments

Drawing No GD70107/2001-001

1. Add terminal numbers on this drawing for all cabling, including DC Link Reactors, exciters and shaft encoders.

Drawing. GD70107/2001- 002

1. Show shipping splits (SS) in a consistent manner. At A10 it shows a SS and the other end of the cable on 008A-H13 also shows a SS. Show shipping splits on both ends of each cable.
2. At U10 add drawing number for disconnect switch.
3. The existing DC Link Reactor has a distribution class arrestor connected to the line terminal. This should be shown on this drawing.

Drawing. No GD70107/2001- 003

1. At P3 provide the reference drawing MN/H4294
2. The cross-reference at B9 and G9 are reversed for the 25 ribbon cables.
3. At V6 the cross-reference should be U11 not U1.

Drawing No. GD70107/2001- 004

1. The cross-reference at E2 and R2 are reversed for the 25 ribbon cables, See comment on sheet 2001–003.

Drawing No. GD70107/2001- 005

There should be a SS at E9 for the 24 VDC cable 1030.

Drawing No. GD70107/2001- 006

1. No exceptions noted.

Drawing No. GD70107/2001- 007

1. At R15, change the dashed outline to a solid line to indicate the resistors are furnished by Alstom.

Drawing No. GD70107/2001- 007A

1. Provide a write up of operation and logic diagrams.
2. ~~All spare analog circuits are to be 4 – 20 mA.~~
3. At P11 add contact numbers to SOR both contacts.
4. At T11 the speed feedback should be 150-1100RPM.
5. At R3 the cable to exciter is shown as twisted and the other side is shown as shielded, what is correct?

Drawing No. GD70107/2001- 008

1. At P12 where is DIS used? Provide reference to switch drawings.

Drawing No. GD70107/2001- 008A

1. No exceptions noted.

Drawing No. GD70107/2001-008B

1. No exceptions noted.

Drawing No. GD70107/2001-009

1. At K12 the exciter cable is shown as shielded on other side it is twisted, what is correct?
2. At P6 the FCN top connect needs contact numbers. This complete contact has to be looked at.

Drawing No. GD70107/2001-010

1. At E3 add wire [illegible] to TB2-8
2. At C15 TB2-1 should be 1037 wire # per other end, correct.
3. At C15 TB2-2 should be 1038 wire # per other end, correct.
4. At K7 wire # 1019D should cross-reference 11-F13 not 11-B13
5. At U6 wire # 1026 add TB3-21
6. At U6 wire # 1027 add TB3-22
7. At U9 wire number 1031 should go to 011-F2 not 011-B2.

2001-011

Drawing No. GD70107/2001-011

1. At E5 the light should be A not G
2. At D14 the wiring of FCN has to be checked as well as TB's. see sheet 009 P5
3. At J15 add contact numbers to FCN, check wiring of FCN last contact.
4. At J15 relay BKTP shows 2 contacts (not numbered) on sheet 12A and 12C it shows both contacts in series. If in series need to show 4 contacts not 2.
5. At T2 terminal TB2-4 should be wire #1039

Drawing No. GD70107/2001-012A

General comments for the wiring drawings 12A, 12B, 12C and 12D

The circuit numbers do not have any hyphens or spaces to differentiate them from the drawing numbers. A typical circuit number would be 2CCEK2127B01. The drawing number associated with that circuit is 2CCE-K2127B.

Attached is a revised drawing for 12A showing the correct format.

1. TB2-1 should be wire # 1046
2. TB2-2 should be wire # 1047
3. TB2-4 should be wire # 1049A and cross-reference should be 011-T3
4. TB2-5 should be wire # 1017
5. TB2-6 should be wire #1019 and cross reference should be 010-B2 not N1
6. TB2-7 and 8 should NOT show a wire on sheet 12A it is only on sheet 12C
7. At L19 cross-reference should be 010-E5 not 010-C5.
8. TB2-11 and 12 each show a contact (2 in series) not that way on other end.
9. Contact on TB3-36 and 37 should be numbered.

Drawing No. GD70107/2001-012B

1. Correct the format to match 12A.

Drawing No. GD70107/2001-013

1. No exceptions noted.

Drawing No. GD70107/2001-101

1. Show all contacts on all relays

Drawing No. GD70107/2001-102

1. At N8 cross reference should be 101-M2 not M7
2. At N11 cross reference should be 101-N2 not N7
3. The OL is before the contactor, I have always seen it after the contactor i.e. between the contactor and motor. It will work but what do you want.
4. The OL is set at 1.5 amps, too low the FLA is 1.4 per this drawing and 2.5 per sheet 106. What is correct?

Drawing No. GD70107/2001-103

1. ~~At L all cross-references letter 7 should be letter 2.~~
2. At M18 and M19 the last two wires should have a wire # 1030
3. At M4 wire #10311 should be 10318
4. At P2 cross-reference 011-B11 should be 011F11

Drawing No. GD70107/2001-104

1. TBP1-17 on the left side should be wire # 10311 per cross reference, yet the other side 10318 is correct per the cross reference.

Drawing No. GD70107/2001-105

1. At R12 the low point drain goes where? To the drip pan?

Drawing No. GD70107/2001-106

1. The motor data is different FLA 2.5 on sheet 104 it is 1.4.
2. At G14 install at lowest point, does it go to drip pan?
3. At B17 is the drain and is shows in the base at ground on the GA, how to you drain any water? Is there a valve? How can you drain it to a container since the drain is at floor level. Water will not run up hill.

Drawing No. CW-12561 and CW-12560

1. Add cross reference to Alstom drawings for 120 V.AC.
2. Drawing shows remote start and stop. What is this?

Drawing No.C-13467

1. Still shows a J bolt, this will not work.
2. Submit details of the anchor bolts including size and type of installation with a Structural PE stamp on the calculation and details.
3. Drawing shows 5 foot aisle not available
4. The remote control conduit, if used would have to be core drilled.
5. The enclosure has to be gasketed.